Claims 1-12 (canceled)

13. (New) A method according for the detection of acute respiratory tract infection comprising the simultaneous amplification of several target nucleotide sequences may be present in a biological sample using a primer mixture which comprises at least one primer set from each one of the following gene regions:

- the F1 subunit of the fusion glycoprotein gene for RSV,
- the hemagglutininneuraminidase gene for PIV-1,
- the 5' noncoding region of the PIV-3 fusion protein gene,
- the non-structural protein gene from influenza A,
- the non-structural protein gene from influenza B,

and said primer mixture further comprises at least one primer set from at least one of the following genes:

- 16S rRNA sequence for *M. pneumoniae*,
- 16S rRNA sequence for *C. pneumoniae*,
- the 5' noncoding region for enterovirus,
- the hexon gene for adenoviruses.

14. (New) A method according to claim 13 wherein the gene region of *M. pneumoniae* and *C. pneumoniae* is the 16S-23S spacer region.

15. (New) Method according to claim 13 wherein said primer mixture further comprises at least one primer set from the 16S-23S spacer region of *B. pertussis* and *B. parapertussis.*

16. (New) Method according to claim 14 wherein said primer mixture further comprises at least one primer set from the 16S-23S spacer region of *B. pertussis* and *B. parapertussis*.

17. (New) A method according to claim 13 wherein said primer sets consists of:

- for enterovirus, SEQ ID NOs: 35 and 36,
- for *M. pneumoniae*, SEQ ID NOs: 17 and 19, or SEQ ID NOs: 18 and 19, or SEQ ID NOs: 37 and 38,
- for influenza A, SEQ ID NOs: 39 and 40,
- for influenza B, SEQ ID NOs: 41 and 42,
- for adenovirus, SEQ ID NOs: 43 and 44,
- for *C. pneumoniae*, SEQ ID NOs: 20 and 21 or SEQ ID NOs: 45 and 46,
- for PIV 1, SEQ ID NOs: 47 and 48,
- for PIV 3, SEQ ID NOs: 49 and 50,
- for RSV, SEQ ID NOs: 51 and 52,
- for *Bordetella*, SEQ ID NOs: 22 and 23.

18. (New) A method according to claim 13 wherein said amplified products are subsequently detected using a probe, with said probe being selected from the group consisting of SEQ ID NOs: 1, 4 to 34 and 53 to 56

19. (New) A method according to claim 13 wherein said primer set consists of SEQ ID NOs: 18 and 19.

20. (New) A method of claim 18 wherein said probe is SEQ ID NO: 15.

21. (New) Primer chosen from SEQ ID NOs: 17, 18, 19, 20, 21, 22 and 23.

22. (New) A primer of claim 21 consisting of SEQ ID NO: 19.

23. (New) Probe chosen from SEQ ID NOs: 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33 and 34.

24. (New) A kit for the detection of acute respiratory tract infection comprising a set of primers according to claim 23.

25. (New) A kit for the detection of acute respiratory tract infection comprising a set of probes selected from the group consisting of SEQ ID NOs: 1, 4-34 and 53-56.

26. (New) A kit according to claim 25, wherein said probes are applied as parallel lines on a solid support.

27. (New) A kit according to claim 26 wherein said solid support is a nylon membrane.

28. (New) A kit for the detection of acute respiratory tract infection comprising at least one primer according to claim 21.

29. (New) A kit for the detection of acute respiratory tract infection comprising at least one probe according to claim 23.